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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,674	07/30/2003	Johannes Menzel	A 91755	6480
7590	04/16/2004		EXAMINER	
Walter Ottesen Patent Attorney P.O. Box 4026 Gaithersburg, MD 20885-4026			BURCH, MELODY M	
			ART UNIT	PAPER NUMBER
			3683	

DATE MAILED: 04/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/629,674	Applicant(s) MENZEL ET AL.	
	Examiner Melody M. Burch	Art Unit 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/30/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/2/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because element numbers 21 and 22 in figures 4, 6, and 8 do not point to any particular element. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect may be deferred until after the examiner has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.

Specification

3. The disclosure is objected to because of the following informalities:
 - Element number "1" has been used to designate both "the transition section" in line 5 of pg. 6 and "the antivibration element" in line 2 of pg. 5.Appropriate correction is required.

Claim Objections

4. Claim 4 is objected to because of the following informalities: the phrase "said number of turns" should be changed to --said number of said turns-- to properly refer back to the turns claimed in claim 3. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 4, 5, and 9-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re: claims 4, 5, and 15. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

In the present instance, claim 4 recites the broad recitation of a number of turns in a range of $\frac{3}{4}$ turn to greater than 2-turns, and the claim also recites the number of turns being greater than approximately $1\frac{1}{4}$ turns which is the narrower statement of the range/limitation. Similarly, in the present instance, claim 5 recites the broad recitation of

a number of turns in a range of $\frac{3}{4}$ turn to greater than 2-turns, and the claim also recites the number of turns being in a range of approximately greater than one turn to four turns which is the narrower statement of the range/limitation. Finally, claim 15 recites the broad recitation of respective angles which are less than 90 degrees, and the claim also recites that the angles lie in a range of 30 degrees to 60 degrees which is the narrower statement of the range/limitation.

Re: claim 9. Claim 9 recites the limitation "said first and second guide members" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Re: claim 12. Claim 12 recites the limitation "said slot" in line 3. It is unclear to the Examiner as to which slot Applicant intends to refer to since more than one slot was previously recited.

The remaining claims are indefinite due to their dependency from claim 9.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-3, 6, 8, 9, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 4712778 to Newman.

Re: claims 1-3. Newman shows in figure 3a an antivibration element comprising a coil spring 1 having an end section shown in the area of section 41 above section 53C and a transition section shown in the area of 53C extending from the end section, a

guide member 33, the end section fixed to the guide member as shown, and the transition section being guided on the guide member with play, the play shown in the area below the lead line of number 49.

Re: claims 6 and 7. Newman shows in figure 3a the limitation wherein the coil spring has first and second ends twisted relative to each other (the first end is shown in the area to the right and below the lead line of element number 45 and the second end is shown in the area above the lead line of element number 47 and are twisted relative to each other by a half turn).

Re: claims 8, 9, and 11. Newman shows in figure 3a the limitation wherein the end section is a first end section and the coil spring has a second end section shown in the area of element 43 below the lead line of number 51, and the guide member 33 is a first guide member 33 and the antivibration element comprises a second guide member 35, and the coil spring is guided at the first and second end sections on the first and second guide members, respectively, as shown.

9. Claims 1, 9, 10, 11, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 1878128 to Griswold.

Re: claim 1. Griswold shows in figure 2 an antivibration element comprising a coil spring 34 having an end section shown in the area surrounding the lead line of number 31 and a transition section shown above the lead line of number 31 extending from the end section, a guide member 31, the end section fixed to the guide member as shown, and the transition section being guided on the guide member with play, the play being shown radially between the coil and portion 36 of the guide member.

Re: claim 9. Griswold shows in figure 2 the limitation wherein the first and second guide members 31,32 being configured as first and second plugs projecting into the interior of the coil spring from opposite ends thereof, and first and second guides 37,49 being formed on the first and second plugs, respectively.

Re: claim 10. Griswold shows in figure 2 the limitation wherein each of the first and second plugs have receptacles (the top receptacle shown in the area to the right of the lead line of number 47, the bottom receptacle being shown in the area surrounding the lead line of number 39) formed therein for accommodating an attachment device.

Re: claims 11 and 16. Griswold shows in figure 2 the limitation wherein the first and second guides are first and second spirally shaped slots 37,49 formed in corresponding ones of the first and second plugs, and at least a portion of the turns of the coil spring being guided in the first and second spirally shaped slots as shown.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Newman in view of US Patent 4886250 to Lucas.

Newman describes the invention substantially as set forth above, including the

coil spring having a plurality of turns, but does not disclose the specific number of turns as claimed.

Lucas teaches in col. 7 lines 16-17 that the firmness of a spring is adjusted by changing the number of turns.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the number of turns of the end section and the transition section of the spring of Newman to have been greater than approximately $1 \frac{1}{4}$ turns and in a range of approximately greater than one turn to four turns, respectively, in view of the teachings of Lucas, in order to adjust the firmness of the spring in the particular spring areas to achieve desired damping characteristics as best determined by the spring application.

12. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Newman in view of US Patent 4905574 to Trevisan.

Newman describes the invention substantially as set forth above including the limitation of the first and second plugs having a means of accommodating an attachment device 37,39, but does not specifically show or disclose the means for accommodating the attachment device being in the form of receptacles formed in the first and second plugs.

Trevisan teaches in figure 6 the use of first and second plugs 2,3 having receptacles 7 formed therein for accommodating an attachment device 8.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the means of connecting the attachment device to

the first and second plugs of Newman to have included receptacles formed therein to provide a functionally equivalent and well-known means of effectively securing an attachment device to the plugs as taught by Trevisan.

13. Claims 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Newman in view of US Patent 3779537 to Kalister.

Re: claim 12. Newman describes the invention substantially as set forth above including the limitation of the coil spring defining a longitudinal center axis, but does not include the limitation of the spacing of the base of the slot to the longitudinal center axis becoming less with increasing distance from the end section.

Kalister teaches in figure 2 the use of an antivibration element wherein the coil spring 31 defines a longitudinal center axis, and wherein, in the transition section or section shown in the area of the lead arrow of number 31 the spacing of the base of the slot to the longitudinal center axis becomes less with increasing distance from the end section shown in the area of the lead arrow number 12 by virtue of the cone configuration of the guide member 10.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the guide member(s) of Newman to have been configured in the form of a cone such that the spacing of the base of the slot to the longitudinal center axis becomes less with increasing distance from the end section, as taught by Kalister, in order to provide a functionally equivalent end connector or guide member to support the coil spring as taught by Kalister in col. 1 lines 25-27. The cone

configuration results in the presence of varying coil diameters which adjusts the damping characteristic of the spring.

Re: claims 13 and 14. Newman, as modified, teaches in figure 3a of Newman the limitation wherein the slots each have a trapezoidally-shaped cross section.

Re: claim 15. In the absence of an explanation of criticality associated with the range of the angles being specifically between 30 degrees to 60 degrees Examiner notes that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the angles to have been between 30 and 60 degrees in order to adjust the way in which the coil spring is secured to the guide members since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable range involves only routine skill in the art. In re Aller, 105 USPQ 233.

14. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Newman in view of US Patent 1878128 to Griswold.

Newman describes the invention substantially as set forth above, but does not include the limitation of slots having a circular-arc-shaped cross section.

Griswold teaches in figure 2 the use of an antivibration device in which slots 37 have a circular arc shaped cross-section.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the cross-section of the slots of Newman to have been in the form a circular arc shape, as taught by Griswold, in order to provide a

functionally equivalent means of accommodating the coil spring. The cross-section may provide a means of more effectively securing the coil spring to the guide member.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patents: 5246215 to Takamura et al., 2514394 to Irving, 2704696 to Rasmussen, and 3854308 to Czech et al. teach the use of antivibration elements comprising a coil spring supported on each side by a guide member, and US Patent 4553545 to Maass et al. (figure 1) teach the use of the first and second ends of a coil spring being twisted to the same extent as Applicant's.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 703-306-4618. The examiner can normally be reached on Monday-Friday (7:30 AM-4:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on 703-308-3421. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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April 13, 2004

Melody M. Burch
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